

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1-12. (Cancelled)

13. (Currently amended) A retroviral vector comprising
a viral core of murine leukemia virus (MLV); and
a virus envelope comprising a full-length surface envelope protein of human
immunodeficiency virus (HIV) or simian immunodeficiency virus (~~SIV~~), (SIV) and a truncated
transmembrane envelope protein of HIV or SIV.

14. (Previously presented) The retroviral vector of claim 13, wherein the truncated
transmembrane envelope protein is an HIV truncated transmembrane envelope protein.

15. (Currently Amended) The retroviral vector of claim 13, wherein (a) the full-length
surface envelope protein is an HIV type 1 or an HIV type 2 surface envelope protein ~~or an SIV
surface envelope protein~~ and (b) the transmembrane envelope protein is an HIV type 1 or an HIV
type 2 transmembrane envelope protein ~~or an SIV transmembrane envelope~~.

16. (Previously presented) The retroviral vector of claim 13, wherein the C-terminus of a
truncated transmembrane envelope protein of HIV or SIV is fused to a fragment of an MLV
transmembrane envelope protein.

17. (Previously presented) A method for preparing a packaging cell that produces a retroviral vector, the method comprising transfecting a cell with

- (i) a psi-negative expression construct comprising a *gag* gene and a *pol* gene of murine leukemia virus (MLV);
- (ii) a psi-positive expression construct encoding a desired gene product; and
- (iii) a transcriptional cassette encoding an envelope protein of human immunodeficiency virus (HIV) or simian immunodeficiency virus (SIV), thereby generating a packaging cell that produces a retroviral vector comprising a viral core of MLV and a virus envelope comprising an envelope protein of HIV or SIV.

18. (Previously presented) A method for preparing a packaging cell that produces a retroviral vector, the method comprising:

obtaining a cell of a packaging cell line comprising a *gag*-gene and a *pol*-gene of murine leukemia virus (MLV) and an expression construct encoding a therapeutic gene, a reporter gene, or a biologically active fragment of a therapeutic or reporter gene; and

transfecting the cell of the packaging cell line with a construct comprising a transcriptional cassette encoding an envelope protein of human immunodeficiency virus (HIV) or simian immunodeficiency virus (SIV), thereby generating a packaging cell that produces a retroviral vector comprising a viral core of MLV and a virus envelope comprising an envelope protein of HIV or SIV.

19. (Cancelled)

20. (Currently amended) The method of claim 17, wherein the envelope protein is encoded by a vector comprising ~~pLβAc/env Tr712-neo~~ a nucleic acid sequence encoding the full-length surface envelope protein gp120-SU of HIV-1 and the truncated variant of the transmembrane envelope protein resulting from a stop codon at position 712.

21. (Previously presented) A packaging cell prepared by the method of claim 17.

22. (Currently amended) A composition comprising a the retroviral vector of claim 13, wherein the retroviral vector further comprises a therapeutic gene, a reporter gene, or a biologically active fragment of a therapeutic gene or reporter gene, wherein the vector mediates the transfer of the therapeutic gene, the reporter gene, or the fragment of the therapeutic gene or reporter gene into a CD4-positive cell of a mammal.

23-27. (Cancelled)

28. (Currently amended) A composition comprising a retroviral vector of claim 13, wherein the vector further comprises a foreign gene or a fragment thereof and the vector mediates the transfer of the foreign gene into a CD4-positive cell of a mammal.

29-31. (Cancelled)

32. (Previously presented) The composition of claim 22, wherein the CD4-positive cell is a human cell.

33. (Previously presented) The composition of claim 28, wherein the CD4-positive cell is a human cell.

34. (Previously presented) The retroviral vector of claim 13, wherein the SIV surface envelope protein is an SIV surface envelope of *Cercopithecus aethiops* (SIVagm), *Macaca mulatta* (SIVmac), *Pan troglodydytes* (SIVcpz), *Cercopithecus mitis* (SIVsyk), *Papio sphinx* (SIVmnd), *Cercocebus atys* (SIVsm), or *Macaca nemestrina* (SIVmne), and the SIV transmembrane envelope protein is an SIV transmembrane envelope of *Cercopithecus aethiops*

(SIVagm), *Macaca mulatta* (SIVmac), *Pan troglodydytes* (SIVcpz), *Cercopithecus mitis* (SIVsyk), *Papio sphinx* (SIVmnd), *Cercocebus atys* (SIVsm), or *Macaca nemestrina* (SIVmne).

35. (Previously presented) The method of claim 17, wherein the envelope protein is encoded by a vector comprising pRep $\Delta 16$ env, pRep $\Delta 7$ env, pRep $\Delta 0$ env, pRep $\Delta 7MLV$ env, or pRep $\Delta 0MLV$ env.

36. (New) The retroviral vector of claim 13, wherein the full-length surface envelope protein is an HIV protein and the truncated transmembrane envelope protein is an HIV protein.

37. (New) The retroviral vector of claim 36, wherein the HIV is HIV type 1.

38. (New) The retroviral vector of claim 36, wherein the HIV is HIV type 2.

39. (New) The retroviral vector of claim 13, wherein the full-length surface envelope protein is an SIV protein and the truncated transmembrane envelope protein is an SIV protein.

40. (New) The retroviral vector of claim 13 wherein the full-length surface envelope protein is gp120-SU of HIV-1 and the truncated variant of the transmembrane envelope protein is an HIV-1 transmembrane envelope protein truncated at position 712.